

Name _____ Class _____ Date _____

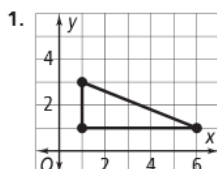
5-3

Practice

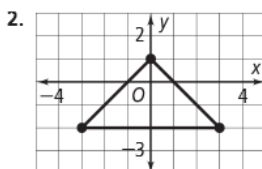
Form G

Bisectors in Triangles

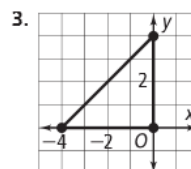
Coordinate Geometry Find the circumcenter of each triangle.



(3.5, 2)



(0, -2)



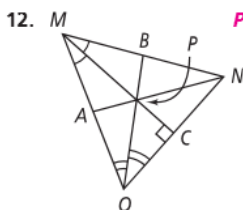
(-2, 2)

Coordinate Geometry Find the circumcenter of $\triangle ABC$.

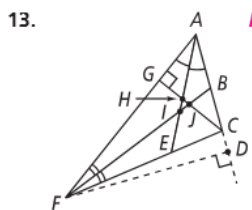
4. $A(1, 3)$ (2.5, 2.5) 5. $A(2, -3)$ (-1, -5) 6. $A(-5, -2)$ (-2, 2) 7. $A(5, 6)$ (2.5, 1.5)
 $B(4, 3)$ $B(-4, -3)$ $B(1, -2)$ $B(0, 6)$
 $C(4, 2)$ $C(-4, -7)$ $C(1, 6)$ $C(0, -3)$

8. $A(1, 3)$ (3, 2.5) 9. $A(2, -2)$ (-1, -4.5) 10. $A(-5, -3)$ (-2, 1.5) 11. $A(5, 2)$ (2, -0.5)
 $B(5, 3)$ $B(-4, -2)$ $B(1, -3)$ $B(-1, 2)$
 $C(5, 2)$ $C(-4, -7)$ $C(1, 6)$ $C(-1, -3)$

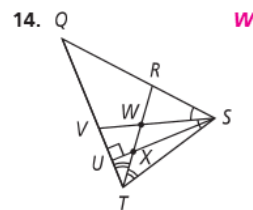
Name the point of concurrency of the angle bisectors.



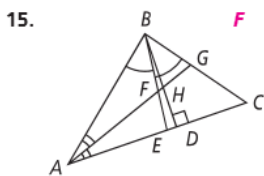
P



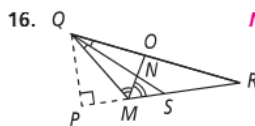
I



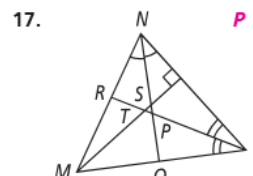
W



F



N



P

Name _____ Class _____ Date _____

5-3

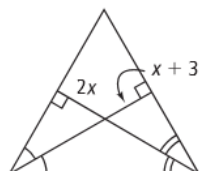
Practice (continued)

Form G

Bisectors in Triangles

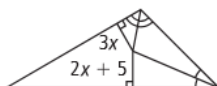
Find the value of x .

18.



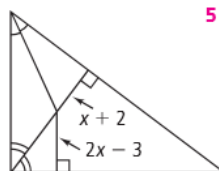
3

19.



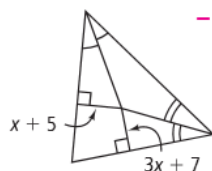
5

20.



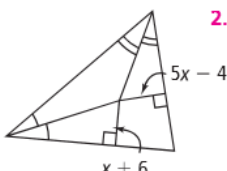
5

21.



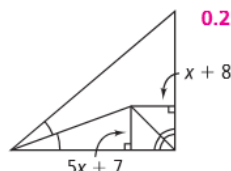
-1

22.



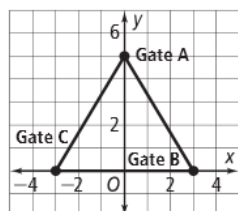
2.5

23.

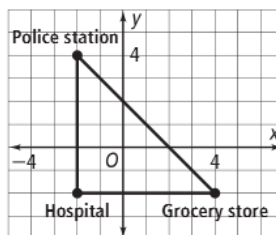


0.25

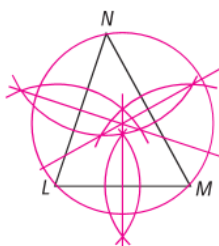
24. Where should the farmer place the hay bale so that it is equidistant from the three gates? (0, 1.6)



25. Where should the fire station be placed so that it is equidistant from the grocery store, the hospital, and the police station? (1, 1)



26. **Construction** Construct three perpendicular bisectors for $\triangle LMN$. Then use the point of concurrency to construct the circumscribed circle.



27. **Construction** Construct two angle bisectors for $\triangle ABC$. Then use the point of concurrency to construct the inscribed circle.

